

FIRST BRITISH RECORD OF A GALL MIDGE PEST OF DAY LILY (*HEMEROCALLIS FULVA* L.)

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On 20 June 1989, a sample of flower stems of day lily (*Hemerocallis fulva* L.) was received at the Royal Horticultural Society's Garden, Wisley, from a private garden at Weybridge, Surrey. The flower buds on these stems were considerably enlarged (Fig. 1) and the petals inside the buds were thickened. Affected buds were failing to open and some had turned brown and dried up at an early stage of development. The misshapen buds contained large numbers of small, white gall midge larvae and these samples were forwarded to the CAB International Institute of Entomology for further study. Reference to the European literature on gall midges established that this pest is *Contarinia quinquenotata* (F. Löw) (Diptera:Cecidomyiidae) and this appears to be the first record of this species from the British Isles. The species was originally described from Austria by Löw (1888) and has also been recorded from Sweden, the Netherlands, West and East Germany, Poland, Czechoslovakia, Hungary and Yugoslavia in the *Catalogue of Palaearctic Diptera* (Skuhrová, 1986).

An examination of *Hemerocallis* plants growing in the RHS Garden at Wisley showed that the midge was also present there and widely scattered throughout the Garden's 240 acres (97 hectares). Later in the summer a sample of infested buds was received from another Weybridge garden, close to the first, and a third sample was sent in from Buxted, East Sussex. The latter correspondent said that the problem



Fig. 1. Normal *Hemerocallis* flower buds on the left and gall midge-affected buds in the centre and on the right.

first became apparent in his garden in 1985 so, although *C. quinquenotata* has not been formally recorded in Britain before, it would seem to have been present for several years.

This pest can be very damaging to day lilies, which are popular and generally trouble-free herbaceous garden plants. On some plants at Wisley, especially yellow-flowered varieties, almost every bud was affected in late June, resulting in a very poor display of flowers. Fortunately, there appears to be only one generation of the midge during the summer and flowers produced after late July were not attacked. The fully-fed larvae leave the buds and go into the soil to overwinter and probably do not pupate until the following year.

It seems likely that this pest will become widely distributed through the movement of infested plants and soil. As with most gall midge pests, control will be difficult as the larvae are well protected within the damaged buds or the soil. Immediate removal and destruction of enlarged buds will help to reduce infestations but may not eliminate the pest entirely as lightly infested buds may show little swelling and larvae may persist in the soil for more than one winter. It may be possible to devise effective control measures once the biology of the midge has been studied in more detail.

REFERENCES

- Löw, F. 1888. Mitteilung über neue und bekannte Cecidomyiden. *Verh. Zool.-Bot., Ges. Wien* 38: 231-246.
- SkuhraVá, M. 1986. Family Cecidomyiidae. In *Catalogue of Palaearctic Diptera*, Volume 4 Sciaridae-Anisopodidae, Soós, A. and Papp, L. (editors). pp. 72-297. Akademiai Kiadó, Budapest and Elsevier Science Publishers, The Netherlands.

BENHS FIELD MEETING



Fig. 1. BENHS Field Meeting to Box Hill, 10 June 1989, with (left to right): Mark Colvin, John Owen, Ian White, Dick Drew (from Brisbane) and Donald Prance.